Testing Machine design

How to Describe our Priorities:

1. We define them if necessary.
2. How do we validate the priority?
3. How is the priority reflected on our design choice?
4. Reason why the priority is considered?

1.We define reliability as the ability of the machine to correctly sort all the inputted disks.

We validate the reliability of the machine by checking the correctness of the code running the machine and also by conducting long-term test (copy paste).

( Isn’t the partial encasing of the conveyer belt a design decision taken due to reliability? If so we should mention it. )

Why? Because the goal of the project cannot be met with an unreliable design.

2.The speed of the machine is defined by the number of disks sorted in a unit of time. We search to select the design solution that improves this number(higher the number, the better).

(We picked it second but were did can give an example were speed was important In an a design decision )

Why? Speed is essential to offer a pleasant experience operating the machine, also speed is the first thing that stands out when two machines of this sort are compared.

3.We define robustness as the fact that the machine does not break easily. The validation is if the machines state wouldn’t be changed (wouldn’t break) during : build phase, test phases, simulations, transportation and the end process, all during the period of the project cycle. Then we consider the machine to be robust.

(Example were robustness determined a design decision/ possibly the container? )

Why? We do not meet our project goal if the machine isn’t capable of running during the final process.

4.We define user accessibility as the ease in which the user takes the actions required from the machine. The validation is done by checking the compatibility of the design with the user constraints.(I don’t understand this validation ☺ ) (Can the container be use here as well?) The reason why this priority is important is that the machine requires a user to be operated and in consequence its operation must be possible.

5.We define amount of space by the amount of floor space that the machine occupies(what about height?). Validation of the low amount of space is done by checking if there are useless components in the machine or other components that can be replaced with smaller counterparts without influencing the priorities above . (I don’t know an example in the design choice) Reason behind this priority is to ease the transportation and storage of the machine.

6.The Difficulty of Building is self-explanatory, no hidden meaning. We validate this be checking if there are any useless components.(Need example badly ☺) Opting for such a priority would make our solution easy to implement.

7.The Amount of Parts of the Machine is also self-explanatory, no definition needed . We also check if there are any useless parts.(Example for reflection on the design) Reasons why we picked this priority is that it might improve the overview of the machine and also the error-detection .

The obtain Test cases we need to answer to the following questions:

1. What do we want to test?
2. What have we tested so far?

Answer to 1 is nothing, we have nothing planned for testing.

Answer to 2 is that we tested the sensors, motors and the conveyer belt.